APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/457,267	12/09/1999	NAOMI IWAYAMA	1359.1020	7493

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EXAMINER
BIENEMAN, CHARLES A

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 03/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE f this communication appears on the cover sheet with the c rresp ndence address --

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _09 December 1999_ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disp sition of Claims

4) ☒ Claim(s) _1-9_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-9_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _09 December 1999_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

       1. ☒ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosur Statement(s) (PTO-1449) Paper No(s) _3, 5, 6_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

1.   This action is responsive to the following communications: original application filed on

December 9, 1999 and Information Disclosure Statements filed on February 28, 2000, November

13, 2002, and February 11, 2003. An entry on the file wrapper states that an Information

Disclosure Statement was filed on December 9, 1999 but no such Information Disclosure

Statement is present in the file nor is such an Information Disclosure Statement listed as

accompanying the application on the application cover sheet filed on December 9, 1999. Thus,

the Examiner assumes that applicant has filed only the three Information Disclosure Statements

identified above.

2.   Claims 1-9 are pending. Claims 1,8, and 9 are independent claims.

Priority

3.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers

have been placed of record in the file.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   **Claims 1-4 and 6-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent Number 6,005,498 to Yang et al., issued December 21, 1999, filed October 29, 1997 in

view of Japanese Patent Application Publication Number Hei 7 (1995)-129572 A of Matsushita

Electric Industrial Co., Ltd, partial translation provided by applicant in the Information

Disclosure Statement filed February 11, 2003 (hereinafter "Matsushita"). With respect to the rejection of each dependent claim below, the preceding rejection(s) of the relevant base claim(s) is incorporated therein.

Regarding **independent claims 1, 8 and 9**, Yang et al. teach a device for entering a character string. (Yang et al., Fig. 2; col. 1, lines 5-6.)

Further, Yang et al. teach an input part for entering a character string. (Yang et al., Fig. 2, block 210.)

Further, Yang et al. teach an input situation acquiring part inasmuch as they teach a MENU key that allows the user to select a "pinyin entry" option. (Yang et al., col. 3, lines 15-17.)

Further, Yang et al. do not teach a situation control part for affirming a dictionary used for generating a candidate character string and designating it as a situation-optimized dictionary. However, Matsushita teaches a dictionary selection part that selects a special dictionary based on the acquiring situation inasmuch as factors include the time of input (Matsushita translation, p. 2, line 9: "using times") and context (Matsushita translation, p. 2, lines 9-11: "the arranged order of the respective special dictionary [presumably, *dictionaries*] recorded in the dictionary usage recording part."). Moreover, Matsushita would have provided motivation for one of ordinary skill in the art to take this step inasmuch as Matsushita implies that this step allows dictionaries containing words for special disciplines to be used where appropriate. (Matsushita, col. 2, lines 4-7.) Therefore, it would have been obvious to one of ordinary skill in the art to have implemented a situation control part for affirming a dictionary used for generating a candidate character string.

Further, Yang et al. teach a candidate character string generation part for generating and outputting an output candidate string in response to a character string entered with the input part. (Yang et al., col. 4, line 63 – col. 5, line 7: "After a user presses the OK key 386 to indicate that the word is completely entered, the microprocessor 220 shown in FIG. 2 initiates a search through the dictionary 244 in ROM 240 for all possible Chinese characters associated with the entered phonetic syllable. . . . The eligible Chinese characters are loaded into the RAM 250 for display.") Yang et al. do not teach generating a string that is optimal for the situation using the situation-optimized dictionary designated by the situation control part. However, this step would have been obvious in view of Matsushita under the same rationale stated above regarding a situation control part for affirming a dictionary used for generating a candidate character string.

Further, Yang et al. teach a candidate character string affirmation processing part for affirming the outputted candidate character string inasmuch as Yang et al. teach a character selection key. (Yang et al., col. 5, lines 51-54.)

Further, Yang et al. teach an affirmed character string storing part for storing a character string that has been affirmed. (Yang et al., col. 5, lines 61-64: "If a character selection key was pressed as determined by step 460, the display 230 is cleared and the selected character is displayed and entered into the RAM 250 shown in FIG. 2.") Yang et al. do not teach storing a string affirmed with the situation-optimized dictionary, but this step would have been obvious in view of Matsushita under the same rationale stated above regarding a situation control part for affirming a dictionary used for generating a candidate character string.

Regarding **dependent claim 2**, Yang et al. teach the situation acquired comprising

information relating to a processing mode with which a character string is processed inasmuch as

Yang et al. teach a "pinyin entry" option. (Yang et al., col. 3, lines 15-17.)

Regarding **dependent claim 3**, Yang et al. do not teach the situation control part

selecting the situation optimized dictionary from a plurality of dictionaries in accordance with

the acquired situation. However, Matsushita teaches a dictionary selection part that selects a

special dictionary based on the acquiring situation inasmuch as factors include the time of input

(Matsushita translation, p. 2, line 9: "using times") and context (Matsushita translation, p. 2, lines

9-11: "the arranged order of the respective special dictionary [presumably, *dictionaries*] recorded

in the dictionary usage recording part."). Moreover, Matsushita would have provided motivation

for one of ordinary skill in the art to take this step inasmuch as Matsushita implies that this step

allows dictionaries containing words for special disciplines to be used where appropriate.

(Matsushita, col. 2, lines 4-7.) Therefore, it would have been obvious to one of ordinary skill in

the art to have the situation control part selecting the situation optimized dictionary from a

plurality of dictionaries in accordance with the acquired situation.

Regarding **dependent claim 4**, Yang et al. do not teach the situation control part

changing a method for generating a situation-optimized dictionary from a plurality of

dictionaries in accordance with the situation that has been acquired. However, Matsushita

teaches changing the method of generating a situation-optimized dictionary inasmuch as it

teaches deciding not just the dictionary to be retrieved but the order in which it is retrieved based

on the acquired situation. (Matsushita translation, p. 2, lines 8-11.) Moreover, one of ordinary

skill in the art would have been motivated to apply Matsushita's teaching because one of

ordinary skill would have recognized that depending on the situation it might be more or less

likely that the user would want given entries in the dictionary. Therefore, it would have been

obvious to one of ordinary skill in the art over Yang et al. in view of Matsushita to change a

method for generating a situation-optimized dictionary from a plurality of dictionaries in

accordance with the situation that has been acquired.

Regarding **dependent claim 6**, Yang et al. do not teach dividing an affirmed string into

units of a necessary lower limit which can be optimized. However, one of ordinary skill in the

art would have recognized that a string can potentially be divided into a plurality of words and

that each word might be useful in the dictionary. Therefore, it would have been obvious to one

of ordinary skill in the art to have divided an affirmed string into units of a necessary lower limit

which can be optimized.

Regarding **dependent claim 7**, Yang et al. do not teach treating character strings that are

used in a pre-existing electronic text in the same manner as affirmed character strings. However,

one of ordinary skill in the art would have recognized the desirability of generating situation-

optimized dictionaries from pre-existing electronic texts as well as affirmed character strings

because one of ordinary skill would have known that pre-existing electronic texts would have

provided a large body of relevant strings for the dictionary. Therefore, it would have been

obvious to one of ordinary skill in the art to have treated character strings that are used in a pre-

existing electronic text in the same manner as affirmed character strings.

6.   **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al. and

Matsushita as applied to claim 1 above, and further in view of Japanese Patent Application

Publication Number Hei 9 (1997)-6771 A of Canon, Inc., partial translation provided by

applicant in the Information Disclosure Statement filed November 13, 2002 (hereinafter

"Canon") and U.S. Patent Number 5,829,023 to Bishop, issued October 27, 1998, filed April 24,

1996.

Yang et al. does not teach storing a last-access date of an affirmed character string when

storing the string. However, Canon teaches reading "the date and time of registration" of a string

in a dictionary (Canon Abstract, CONSTITUTION, line 6), which inherently required that the

date and time be stored when the string was stored. Moreover, Canon teaches the benefit of

enabling automatic removal items from a dictionary. Therefore, it would have been obvious to

one of ordinary skill in the art to have stored a last-access date of an affirmed character string

when storing the string.

Further, Yang et al. do not teach changing the last-access date of an already-stored string

when it is accessed. However, Bishop teaches maintaining "a file attribute containing

information concerning the date and frequency of use of a particular file." (Bishop, col. 4, lines

19-21.) Moreover, one of ordinary skill in the art would have been motivated to implement such

a step because one of ordinary skill would have recognized that users would be most likely to

want to access files (or strings) which they had most recently accessed. Therefore, it would have

been obvious to one of ordinary skill in the art to have changed the last-access date of an already-

stored string when it is accessed.

Further, Yang et al. do not teach deleting character strings which have not been used for a

certain period of time from the situation-optimized dictionary. However, Canon teaches deleting

information from a dictionary when it has not been used for a certain period of time. (Canon

Abstract, CONSTITUTION, lines 15-18.) Moreover, one of ordinary skill in the art would have

been motivated to adopt Canon's teaching because one of ordinary skill would have recognized that users would not want to see unused items of information (*e.g.*, strings) and moreover such unused items of information would have consumed unneeded memory and storage resources. Therefore, it would have been obvious to one of ordinary skill in the art to have deleted character strings which have not been used for a certain period of time from the situation-optimized dictionary.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Number	Name	Issue / Pub. Date	File Date	
US 6,507,891 B1	Challenger et al.	1/14/03	1/22/99	
US 6,453,404 B1	Bereznyi et al.	9/17/02	5/27/99	
US 6,307,541 B1	Ho et al.	10/23/01	7/7/99	
US 6,204,848 B1	Nowlan et al.	3/20/01	4/14/99	
US 6,170,000 B1	Bories et al.	1/2/01	12/31/98	
US 6,112,215	Kaply	8/29/00	9/24/98	
US 5,818,437	Grover et al.	10/6/98	7/26/95	
US 5,404,299	Tsurubayashi et al.	4/4/95	n/a	
US 5,387,042	Brown	2/7/95	n/a	
US 5,128,672	Kaehler	7/7/92	n/a	
US 2002/0188942 A1	Bryan et al.	12/12/02	3/26/99	

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Bieneman whose telephone number is 703-305-8045. The examiner can normally be reached on Monday - Thursday, 7:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 703-308-5186. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-4700.

CAB
February 22, 2003